

CLAIMS

1. Method for producing casting cores and/or casting molds with a core shooter and/or mold shooter (1) with at least one shooting unit (2), which has a shooting head (4) and in which a material to be shaped (50), comprising filling a mold with a mixture made from core or molding sand with a binder by supplying compressed air through a shooting board (5) having at least one shooting opening (6) for shooting the material into the mold (100), and mechanically loosening the material to be shaped (50) present in the shooting unit (2) before, during, and/or after the shooting.
2. Method according to Claim 1, further comprising mixing the material to be shaped (50) during loosening.
3. Device for producing casting cores and/or casting molds comprising at least one shooting unit (2) having a shooting head (4) to be filled with material to be shaped (50), especially core or molding sand with a binder, a shooting cylinder (3) used for supplying compressed air during shooting, a shooting board (5) having at least one shooting opening (6), and at least one moveable mixing tool (7) is arranged at least in the shooting head (4).
4. Device according to Claim 3, the mixing tool (7) can be driven in the shooting head (4) so that it rotates about a longitudinal center axis of the shooting head (4).
5. Device according to Claim 4, wherein the mixing tool (7) has a drive (8) that drives a rotating shaft (9), which is oriented along the longitudinal center axis of the shooting unit (2) and on which at least one projecting mixing vane (10) is arranged.

6. Device according to Claim 5, wherein the drive (8) can be controlled before, during, and/or after the shooting process.
7. Device according to Claim 3, wherein the mixing tool (7) is arranged close to the shooting board (5), a center region of the shooting head (4).
8. Device according to Claim 5, wherein the drive (8) is arranged at an upper end of the shaft (9) and in an upper part of the shooting unit (2).
9. Device according to Claim 5, wherein a plurality of mixing vanes (10) are arranged on the shaft (9).
10. Device according to Claim 9, wherein the mixing vanes (10) are oriented horizontally.
11. (Currently amended) Device according to Claim 9, wherein a length of the mixing vanes (10) in the shooting cylinder (3) corresponds approximately to a radius of the shooting cylinder (3) and a lower one of the mixing vanes (10) in the shooting head (4) is longer than the mixing vane (10) in the shooting cylinder (3) and reaches at least to the shooting openings (6) and/or projects past the shooting openings (6).
12. Device according to Claim 9, wherein the shaft (9) reaches with a lower free end thereof nearly up to the shooting board (5) and the mixing vane (10) close to the shooting board (5) is arranged on or near a lower free end of the shaft (9).
13. Device according to Claim 9, wherein the mixing vane (10) is assembled from several individual vanes, and the individual vanes are mounted with inner ends thereof to the shaft (9) of the mixing tool (7) and point with outer free ends thereof radially in different directions.

14. Device according to Claim 5, wherein the mixing tool (7) is fixed detachably to the drive (8) and can be removed therefrom.
15. Device according to Claim 3, wherein a discharge opening (11) for removing excess material to be shaped (50) is provided in the shooting head (4).
16. Device according to Claim 13, wherein the mixing vane (10) is assembled from two separate vanes arranged as a mixing vane pair.